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Subject: Scranton Times-Tribune (1-20) EPA will test Dimock water supplies, deliver to four homes (Updated!!!)

## EPA will test Dimock water supplies, deliver to four homes

By Laure Legere

The federal government will begin testing water supplies for 61 homes in Dimock Twp. as soon as today in a dramatic expansion of the Environmental Protection Agency's current investigation into potential contamination by natural gas drilling and hydraulic fracturing in the Susquehanna County township.

Citing its authority under the Superfund law, the EPA will also begin providing replacement drinking water supplies to four township homes where water tests taken by outside firms raised health concerns - some of them rising to the level of an "imminent and substantial threat" in houses where small children live, the agency said.

The EPA reached out to both the state Department of Environmental Protection and Cabot Oil & Gas Corp., the Marcellus Shale driller active in the area, to ask if they would be interested in working with the agency as it collects data.

Both agreed to cooperate Thursday, but indicated they were not convinced that the EPA's actions are necessary.

"Our review, so far, tells us that EPA does not seem to have presented any new data here," DEP spokeswoman Katherine Gresh said. "More than a year ago, DEP's enforcement action addressed this issue and ensured funds were set aside to resolve the water quality issues for these homeowners."

Cabot spokesman George Stark said the company's tests show the Dimock well water meets federal health standards or reflects natural conditions and the company's operations are not responsible for the health concerns cited by the EPA.

State regulators have found Cabot responsible for contaminating water supplies for 19 Dimock homes with methane from faulty gas wells, but the EPA on Thursday indicated that the contaminants in Dimock water, and the potential threat posed by the compounds, is greater than previously acknowledged.

Cabot halted bulk and bottled water deliveries to the homes on Dec. 1 after the state said the company had met the relevant terms of a December 2010 settlement over the methane contamination: offering to pay twice the tax-assessed value of each home and install methane removal systems that many residents rejected saying they do not remove metals and other contaminants in their water.

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According to an EPA memo released Thursday outlining the agency's authority to act in Dimock, "a number of home wells in the Dimock area contain hazardous substances, some of which are not naturally found in the environment."

The memo notes that "there is reason to believe" there has been a release of hazardous substances related to drilling and outlines concerns that methane removal systems offered by Cabot may or may not remove other contaminants found in the water.

Tests by Cabot and other firms detected seven chemicals or compounds in Dimock wells the EPA found concerning, including arsenic; barium; bis(2-ethylhexyl) phthalate, a plasticizer commonly called DEHP; glycol compounds, which are used in antifreeze; manganese; phenol, a disinfectant; and sodium. Health effects related to the chemicals include cancer, gastrointestinal disturbances, skin burns, high blood pressure and kidney, lung, liver, heart and nervous system damage.

Many of the compounds are naturally occurring, the agency said. All of them are associated with natural gas drilling.

An EPA toxicologist reviewed water sample results from eight homes where replacement water deliveries by volunteers have been sporadic and uncertain since regular Cabot deliveries stopped. Several of the wells had "noteworthy concentrations" of chemicals, including some that are not naturally occurring, for which there are no established toxicity limits, she found, and four had levels of arsenic or manganese that could pose a health threat.

Manganese levels in one water supply "represents an imminent and substantial threat" in a home with two children, including a toddler, she wrote. Arsenic in the water supply for a second home, where two toddlers live, was found at a concentration that "would pose a long-term cancer risk."

Another survey by the Agency for Toxic Substances and Disease Registry of the test results for 18 Dimock water wells known to be tainted with methane suggested that none of the water supplies should be used until more sampling and a full public health evaluation is completed.

"These sample results indicate that there is a possible chronic public health threat based on prolonged use of the water from at least some of these wells" assuming the level of the contaminants stays the same, the agency wrote. Issues with the quality of past water sampling and analysis means "a potential health threat for the remaining wells cannot be disregarded," it added.

The EPA's water sampling - which will cover a 9-square-mile area and take at least three weeks to complete - will cover a broad array of chemicals and other constituents that may be in the water, with a focus on about a dozen parameters that have shown up in Dimock water wells.

The EPA said it wants to perform its own testing to fill "gaps" in the data gathered by Cabot, the state and other testing firms. The existing data do not all meet quality controls, the agency said, and some samples have been analyzed for parameters not studied consistently throughout the township.

Testing is contingent on the agency gaining permission from home owners to take samples - no guarantee in a town where sentiments are sharply divided over gas drilling and many residents have petitioned for Cabot to be allowed to resume operations in an area off-limits to the driller since 2010.

Mr. Stark said Thursday that Cabot "believes that the US EPA has a flawed interpretation of the data and has taken it out of context" which "has resulted in an unwarranted investigation" by the agency. State regulators have "extensively investigated alleged groundwater concerns in the Dimock area and concluded, using sound science, that it was safe."

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Ms. Gresh, the DEP spokeswoman, said the department is just beginning to review information provided by EPA on Thursday and agrees that additional sampling should take place in Dimock.

The treatment system proposed in the state's December 2010 settlement with Cabot would solve the residents' water issues, she said.

"The system would address parameters EPA references here, including arsenic and manganese, and would provide water that meets and exceeds safe drinking water standards," she said.

Federal environmental regulators reopened their investigation of Dimock water wells in late December after declaring on Dec. 2 that the water posed no "immediate health threat." The agency reversed course after reviewing water test results released only after the agency's announcement.

The agency has been criticized by the state for having only a "rudimentary" understanding of the situation in Dimock and by the industry for overstepping its regulatory authority.

Oil and gas drilling is predominantly regulated by the states.

The EPA's action Thursday resembled the steps the agency took during its early investigation of water contamination in Pavillion, Wyo., where recent preliminary findings detected a likely link between hydraulic fracturing and contaminated groundwater for the first time. Hydraulic fracturing, or fracking, is the gas extraction process of injecting large volumes of chemically treated water and sand underground to break apart gas-bearing rock formations.

In that controversial investigation, as in Dimock, Pavillion residents sought help from federal regulators after they felt state and local officials ignored the scope of their water problems and the EPA intervened under its Superfund law authority.

Dimock residents who have sued Cabot and grown disillusioned with state regulators said they had reason for optimism on Thursday after years of disappointments - including earlier promises, later rescinded, by the EPA to provide water.

"We really needed a break because it's been awful," resident Victoria Switzer said. "I believe the P in DEP these days stands for 'political," she added, "but I'm thinking the P in EPA might actually stand for 'protection."

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